

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18. (cancelled)

19. (currently amended): A substrate having at least one surface and a zinc diffused nickel alloy coating on said at least one surface, said substrate being formed from a low carbon steel.

20. (cancelled)

21. (original): A substrate according to claim 19, wherein said substrate comprises a component used in a gas turbine engine.

22. (original): A substrate according to claim 19, wherein said zinc diffused nickel alloy coating provides corrosion resistance and heat resistance at temperatures in excess of 900°F.

23. (original): A substrate according to claim 19, wherein said coating has a nickel or nickel alloy layer into which zinc atoms have diffused and a zinc layer into which nickel atoms have diffused.

24. (original): A substrate according to claim 23, wherein said nickel alloy layer is formed by an alloy selected from the group consisting of a nickel cobalt alloy, a nickel iron ally, a nickel manganese alloy, a nickel molybdenum alloy, and a nickel tin alloy.

25. (cancelled)

26. (currently amended) : A component for use in a gas turbine engine comprising:

a steel substrate formed from a low carbon steel; and

a zinc diffused nickel alloy coating on said steel substrate.

27. (new) : A method for forming a corrosion and heat protective coating on a gas turbine engine component comprising the steps of:

providing a substrate formed from a low carbon steel;

forming a nickel base coating layer on said substrate;

applying a layer of zinc over said nickel base coating layer; and

diffusing the zinc into said nickel base coating layer.